MANUAL OF OPERATIONS FOR IMPROVED DISBURSEMENT OF MUNICIPAL FUNDS

MUNICIPALITY OF VIDIN, BULGARIA

Prepared for

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TABLE OF CONTENTS

CASH FLOW MANAGEMENT	1
THE IMPORTANCE OF CASH FLOW MANAGEMENT	1
Program Objectives	
Program Benefits	
1 rogram Bonomo	'
RELATIONSHIP WITH THE BANKS	
Banks Are in Business to Make a Profit	
Banks Work in a Competitive Environment	
Available Banking Services	3
Choice of Servicing Bank	3
Start of the Cash Flow Management Program Accounts	4
Accelerating Cash Payments	4
Payments Schedule	5
Choice of Time Period	5
Number of Cash Flow Periods	5
Communication of the Program to Municipal Staff	6
MAKING REVENUE ESTIMATES	6
Budget Revenue	
Local Tax Revenue	
Local Charges	
Municipal Assets Revenue	
Central Budget Transfers	
Municipal Bonds Revenue	
Off-Budget Revenue	
MAKING EXPENDITURE ESTIMATES	11
Wages	
Withholding Tax on Wages	
Debt Service	
Capital Expenditure	
Purchases	
Outside Services	
Other Operating Costs	13
CASH FLOW AND INVESTMENT REVENUE PROJECTIONS	13
Determining the Size and Timing of Investment	14
Determining Investment Revenue by Accounting Period and Fund	14

Person

Legal Framewo Risk Liquidity Yield	rual investment ork ernatives		15 15 15
SHORT-TERM BC	PRROWING		16
APPROACH TO COS	T CENTER ASSESSMEN	ITS	19
EDUCATION COST C	CENTER ASSESSMENT		21
GENERAL			21
SCHOOL ACTIVIT	Υ		21
Group 1 Group 2			25 25
HEALTH CARE COS	T CENTERS ASSESSME	NT	27
REGIONAL HOSP	TTAL		27
APPENDICES			
Exhibit 1: Com Exhibit 2: Estin Exhibit 3: Estin Exhibit 4: Estin	SH FLOW MANAGEMEN petitive Analysis of Bankir nated Cash Receipts nated Cash Expenditures nated Cash Flow edule of Income Earned or	ng Services	
Attachment 1: Attachment 2: Attachment 3: Per Student Attachment 4:	UCATION COST CENTER Overview of Cost Center Schools Sorted by Number Schools by Number of Ct Schools by Number of Ste Schools by Expenses F	Expenditures er of Classes Classes, Maintenance Co udents	•

Attachment 6: Schools by Salary and Social Security Per Student and Expenses Per Class

Attachment 7: Schools by Heating Expense Per Student, Salary and Social Security Per Class, and Salary and Social Security Per Staff Member

APPENDIX C: HEALTH CARE COST CENTERS ATTACHMENTS

Attachment 1: Staff/Expense Ratios

Attachment 2: 1996 Expenses

Attachment 3: 1996 Expenses (Sorted by Beds per Staff)
Attachment 4: 1996 Expenses (Sorted by Patients per Staff)

Attachment 5: 1996 Expenses (Sorted by Ward Cost)

Attachment 6: 1996 Expenses (Sorted by Ward Cost per Bed)
Attachment 7: 1996 Expenses (Sorted by Ward Cost per Patient)
Attachment 8: 1996 Expenses (Sorted by Ward Cost Per Staff)

Attachment 9: Wards with Cost Measures Beyond One Standard Deviation from

Mean

MANUAL OF OPERATIONS FOR IMPROVED DISBURSEMENT OF MUNICIPAL FUNDS

MUNICIPALITY OF VIDIN, BULGARIA

CASH FLOW MANAGEMENT

"The best advice I can give you is to keep things simple. Steer clear of big and complicated transactions, and enormous interest rates. Even if you didn't, legal restrictions and the shortage funds would block your way. Utilizing and investing your cash surpluses properly, even at a low interest rate, will earn you an income that might surprise you... so, keep it simple and make money work."

THE IMPORTANCE OF CASH FLOW MANAGEMENT

Program Objectives

The ultimate objective of a cash flow management program is to ensure the increase of non-tax municipal revenue through the investment of funds not required for current operating costs. This is a rather ambitious task that places demands on the financial manager's time and efforts. He must:

- Make a thorough assessment of the current state of cash flows, their meaning, their timing and their sources.
- Study carefully future cash flow trends on the basis of past experience.
- Become profoundly familiar with short-term money markets, where the funds could be invested until they become necessary again to meet municipal costs.
- Do short-term investment of excess funds.

In order to ensure maximum yield, the financial manager must spread the maturities over time in such a way that:

- Outlays are made as due, without the need to sell any securities held before they have matured.
- The maximum yield allowed by the market is obtained on longer-term securities.
- Disposable cash is kept within pre-determined minimums.

Program Benefits

The obvious benefit of cash flow management for the city is that it results in greater non-tax revenue. In addition, it enhances people's understanding of revenue and

expenditure. As more funds become available through the program, the city's governance will be in a position to better assess present and future policies in terms of their cash flow effect.

The city's financial managers will establish a closer working relationship with local and national bankers. The program's success will strengthen the city's ties with the financial community. These will prove especially important when the time comes for a major capital development project, together with the need to float a municipal bond, or when the city needs to borrow on a short-term basis.

Admittedly though, the benefits of a cash flow management program are above all financial, i.e., better investment performance and reduced cost of borrowing. What should also be borne in mind is that, sometimes, social, economic or political considerations may prevail over the financial ones. In those circumstances, the financial manager should be capable of expressing the financial cost of such a shift of emphasis as a loss of financial benefit. If, on the other hand, the city's decision is likely to result in any long-term economic benefit, like the growth of a certain business sector, the financial manager should again be capable of assessing its positive financial repercussions.

RELATIONSHIP WITH THE BANKS

The efficiency of a municipal cash flow management program depends, in part, on the strength of the city's ties with the banking community. In developing such ties, the financial manager should take the following elements into account.

Banks Are in Business to Make a Profit

Banks run into costs in order to serve their customers and if they cannot generate enough revenue from a customer to cover those costs and make a reasonable profit, they will prefer not to deal with that customer. Banks earn their revenue from:

- Service fees, which do not always cover the related costs.
- Investing depositors' money for a return. (That is why banks would rather have customers keep their money in non-interest bearing accounts; to them, such funds are "money for nothing"; and even when they do pay interest to depositors, banks usually invest the funds at a higher interest rate than the one at which they have to pay.).
- Loans made to customers at interest rates that exceed the cost of funds lent.

Banks Work in a Competitive Environment

It must be remembered that banks compete with one another in order to attract customers. Within one and the same community, two banks may have different policies with respect to:

- Service fees:
- Minimum required balances on non-interest bearing accounts;
- Deposit interest rates; and
- Short-term lending rates

Available Banking Services

The financial manager must identify the banks with which the city would wish to establish a working relationship. If there are no more than one or two banks within the municipality, available facilities in the nearest large towns should be studied, as branch networks do not have the same level of penetration. The existing legal bans and restrictions must also be considered. Thus, Section 6 of the Transitory & Final Provisions of the National Budget Act for 1996 prohibits the servicing of Budget funds by private financial undertakings. In addition, a joint BNB/MoF circular requires municipalities to be served by a single bank, for both budget and off-budget funds.

Exhibit 1 provides a sample check-list on which financial managers could base their evaluation of the various banking services and their choice of a servicing bank. In addition to the standard customer services, the city may require special ones to provide for non-recurrent needs or contingencies.

In many cases, the servicing bank would become the city's main financial advisor. Bankers may be of help in developing municipal investment strategies or as a source of information about investment opportunities. Also, they could greatly facilitate municipal borrowing or the floating of municipal bonds.

The financial manager should discuss with the bank the size and timing of future investment, long before a cash surplus has become available, so that the best investment opportunity may be seized when it arises.

Choice of Servicing Bank

The choice of a servicing bank depends on a number of factors. The most important of them are:

- The specific services offered and their price;
- The bank's size and reputation;

- Quick and easy access to City Hall;
- Adequate branch network to serve municipal entities; and
- The bank that serves the Local Tax Authority (it is desirable that the city and the tax authority use the same bank).

The final choice itself should be made on the basis of competitive bidding, with clear and stable requirements over the long run being put forward to the participating banks.

Start of the Cash Flow Management Program Accounts

The first step in the program is a critical review of each of the city's existing bank accounts. In most cases, cities maintain a large set of bank accounts, off-budget ones in particular, in order to distinguish among funds of various uses. Another explanation of this is that double-entry book-keeping is not applied.

The financial manager must review each existing account and:

- Establish the reason for its existence;
- Calculate the average balance;
- Establish the source and type of payments to the account; and
- Establish the source and type of payments from the account.

The main purpose of this exercise is to determine which accounts, if any, could be closed. In the interest of the program's efficiency, the number of bank accounts should reduced to the workable minimum. It is not at all irrelevant whether the city has four bank accounts of BGL 1,000,000 each or just one of BGL 4,000,000. In the event of an investment opportunity, the latter scenario would offer clear advantages:

- Easy and simple arrangements;
- Higher yields; and
- Lower administrative costs.

Accelerating Cash Payments

Once the number of bank accounts is brought to a minimum on the basis of the above financial and legal analysis, the next step is to try and speed up the transfer of cash payments. The arrangement to be sought must make sure that the funds are credited to the city's accounts on the same day as the cash payment is made by a taxpayer. For that purpose, the practices of the tax administration should be analyzed and efforts should be made to convince the tax authorities of the benefits of accelerating the process by the adoption of common procedures.

Payments Schedule

The more important spending items should be outlaid on a pre-set regular basis. The wage-bill, for example, is budgeted on a monthly or weekly basis. Some regularity should be introduced also in other payments towards services provided to the city, even though some of them must be offset by earmarked revenue.

It would be a good idea to develop a flow-chart of payment procedures and make sure that it is observed by all heads of departments and services. A similar arrangement should be made for non-recurrent or contingent spending with an emphasis on the exceptional nature of such payments.

The flowchart should also cover the operations of single budget accounting units and should fit in with the overall municipal schedule.

Payments on bills and invoices should be delayed as long as possible within the agreed terms. On the other hand, if an attractive price discount is offered for early payment, the opportunity should not be ignored. In any case, the benefit of the price discount should be weighed against the opportunity cost of bank interest lost on the money, and vice versa. Thus, a 2 percent discount if payment is made within 10 days makes no difference in comparison with the full price payment within 30 days, if the annual interest rate is 36 percent.

Choice of Time Period

Once the schedule is made, a time period should be selected for the purposes of the program Thus, if wages are paid on a monthly basis, the period could be set at 30 days. This would imply that all inflow, outflow, and net cash flow projections should span 30-day periods.

In most cases, if the chosen period matches the regularity of wage payments, the program. mechanism becomes simpler. That is because wages are the most significant cash payments from a city's budget and the necessary funds should be provided for in the cash flow projection. For example, it would be desirable to match the maturities of short-term bonds with the "maturity" of the city's wage liabilities, i.e., the pay-day.

Number of Cash Flow Periods

As a rule, cash flows are projected within the financial year and, so, the number of cash flow periods within a year depends on the chosen length of period. Thus, since one the main budget revenue sources is the profits tax paid on a quarterly basis, cash flow projections may be done four times a year.

The main disadvantage of such a practice is that the timings of revenue and expenditure do not match within any single period, even though the discrepancies may balance out over several periods. While this may cause difficulties in the management of investment or debt service maturities that go beyond the chosen cash flow period, there should be no problem in matching assets and liabilities within any given year. It is therefore recommended that cash flow projections be done on a financial-year basis.

Communication of the Program to Municipal Staff

Once all of the above tasks are completed, the next step is to communicate the program to the other municipal officers and staff, i.e., members of the Council, the Mayor, heads of departments and services, and heads of functional units. Each of those should form a clear understanding of the importance of higher non-tax revenue and of his/her own contribution to particular phases in the process. For example, the head of the Education Department should bear the program in mind when scheduling education related contract payments and when drafting the arrangements with independent contractors. The Mayor and the City Council should understand the economic benefit to the city of using a variety of banking practices.

MAKING REVENUE ESTIMATES

Budget Revenue

As already mentioned, the financial manager must have a detailed knowledge of the nature, timing and sources of municipal revenue so that it can be budgeted realistically. Exhibit 2 provides a sample tabular form for revenue projections. While column headings and their relative weight may differ from one city to another, the purpose of the exercise would be the same: reach a realistic estimate of municipal revenue for each time period.

Local Tax Revenue

Personal Income Tax

This local tax source accounts for over 30 percent of total revenue and for some 70 percent of tax revenue. Taxpayers should be divided into wage-earners (under an employment agreement, Article 4 of the Personal Income Tax Act) and self-employed (or "liberal professionals" under Article 13 of the Personal Income Tax Act). The first group should be divided further into wage-earners employed in the so called budget sector (public services and administration) and those employed in the economic sector (State-owned or private business). The following sets of data should be obtained in cooperation with the tax administration:

• Article 4: Taxpayers in the Economic Sector

- Number of persons employed
- Number of persons by income bracket
- Wage payment schedules of main employers in the municipal territory
- Application of government resolutions concerning periodic pay indexation
- "Problem" employers and size of outstanding wage payments, delayed because of financial difficulties

• Article 4: Taxpayers in the Budget Sector¹

- Number of persons employed
- Number of persons by income bracket
- Wage payment schedules
- Application of government and municipal resolutions concerning periodic pay indexation

Article 13: Taxpayers

- Amount of current tax payments
- Analysis of annual tax returns
- Projected revenue schedules based on previous year

Profits tax

Taxpayers under the Profits Tax Act should be divided into two groups by type of ownership, i.e., municipal and all others.

Municipal Companies and Enterprises

Coherent accounting and control system

 $^{^{1}}$ This one is easy to calculate as the tax base is in fact a city expenditure item.

- Adoption of city ordinance concerning the management of the city's share in corporate capital pursuant to the Municipal Property Act
 Management contracts tied to financial and fiscal performance

Other Profits Taxpayers

- Detailed analytical performance indicators
- Comparison of business plan projections with tax inspection findings
- Account taken of privatization developments and statutory tax incentives

Real Property Tax

- Detailed study of tax assessment techniques
- Account taken of uneven distribution over the fiscal year
- Close cooperation with the Territorial and Urban Development Department as a source of adequate information about new construction and tax base enlargement

Amounts Carried Forward

- Coordination with the Local Tax Administration Office concerning major revenue arrears
- Projection basis beyond the chosen time period

Local Charges

Municipalities enjoy increasing discretion in the rate-setting of local charges for public services, garbage collection being the most highly liberalized. The proportion of local charges in municipal budget revenue has been rising steadily and has reached 10 percent (from the 2-4 percent during the 1991-1993 period). In addition to accounting for them in terms of cash flow, the rate-setting techniques for local charges should be analyzed. Failure to apply consistent and objective cost accounting methods to the various services and the respective charges may cause negative effects, such as:

- Service unaffordability;
- Emergence of alternative supply;
- Deteriorated collection ratios;
- Poor service quality; and
- Reduced charge revenue.

In terms of cash flows, there is a need to:

- Identify precisely the points of service provision and the related procedures;
- accelerate cash payments; and
- develop clear and coherent rules concerning overpaid or inappropriately paid charges.

Municipal Assets Revenue

The size and types of this revenue depend on the size and types of municipal assets, and their uses in accordance with city policies and approved procedures, etc. Revenue items may include: rent, disposal of real and personal property.

Leases are the most common method of municipal asset management:

- Develop a contract monitoring system.
- Apply adequate and timely measures in cases of non-performance.
- Coordinate with the tax administration to avoid untimely inflows.
- Update the program to allow for rent adjustment pursuant to Council resolutions.

Asset disposal does not result in any significant budget revenue and the proceeds are easy to estimate given a well functioning municipal administration.

Central Budget Transfers

The total amount is divided into a general and a special subsidy. The general subsidy is appropriated towards the city's current operating costs within the framework of its mandate, while the special subsidy funds selected local projects of regional or national importance. In addition, and greatly significant for the purposes of cash flow projection is the established practice of passing the current National Budget Act some time during the financial year. This entails the adoption of two different approaches for the respective periods before and after the Budget's effective date. On the other hand, the general subsidy forms a significant proportion of most municipal budgets and the late passing of the National Budget Act, together with the irregular disbursement of the subsidy, causes a lot of financial problems at the local level.

General Subsidy

- Become familiar with the method of its allocation under the current National Budget Act.
- Reach an agreement with MoF on a time interval for disbursements to the local budget account.

 Analyze the timing and proportion of disbursements in previous years, and adjust current year estimates accordingly.

Special Subsidy

- Become familiar with the projects receiving the funding.
- Become familiar with the existing contractor arrangements.
- Reach an agreement with MoF on a time interval for disbursements to the local budget account in accordance with the existing project contracts and established MoF procedures.

Municipal Bonds Revenue

The legal opportunities for this kind of revenue (provided by the Local Self-Government and Local Administration Act (LSGLA)) have not been fully used so far. The few attempts have failed to produce positive results, either because of inadequate conformity to the main requirements of bond issues or because the funds raised have been channelled to unreasonable municipal programs. Still, during the continual transition period, coupled with a persistent financial crisis, the community funding of development projects, focused above all on public services, is likely to remain the only viable option. In terms of general cash flow projections, bonds revenue will continue to be irrelevant for quite some time into the foreseeable future. The instrument is likely to be used for financing long-term capital development, like new schools or the completion of water and sewer systems. Thus, the purpose of municipal bond issues being largely non-recurrent, separate cash flow management programs should be developed for them to account for project-specific revenue and expenditures. Every issue should also be supported by a specific investment strategy.

Off-Budget Revenue

What has been said about bond issues, in terms of cash flow management, largely holds true for off-budget funds as well. Each of those has been set up for a special purpose and is governed by its special rules of appropriation and obligation. A somewhat different case is presented by the Housing Development Fund and the one to which municipal privatization proceeds are appropriated. Pursuant to the Transformation and Privatization Act of State-Owned and Municipal Enterprises, 88 percent of proceeds must be spent on investment. Various projects may be funded from the same fund and specific cash flow projections should be developed. In some cities, investment in infrastructure development prevails, while others focus on the reorganization of municipal companies, and still others prefer venture capital investment. Despite the variation among the specific cases, some basic cash flow management rules could be defined:

- Detailed study of the nature of each fund
 - Founding documents
 - Funding target areas
 - Fund-raising arrangements
 - Spending arrangements
 - Bank account type
- Average balance and velocity of circulation
- Contractual arrangement for projects being funded
- Possibilities for free budget financing under City Council rules
- Other short-term investment opportunities under the law

MAKING EXPENDITURE ESTIMATES

Many financial managers would find making expenditure estimates a rather easy task. On the other hand, it is not one to be underestimated, especially where outlays depend on short-term investment maturities and if current payables tend to rise. Exhibit 3 provides a sample tabular form for expenditure projections by future period. As in Exhibit 2, column relative weights may differ from one city to another but the purpose of the exercise would be the same: reach a realistic estimate of municipal expenditure for each time period.

The estimate is made much easier and will be much more realistic if based on types of cost, rather than on the related funding sources. Monthly wages, for example, may be funded from a variety of sources, but in order to reach a more accurate estimate of how much each payment will involve, they should be grouped together as a single cost item, rather than by source of funding for the period.

Wages

As a rule, the frequency of wage payments determines the cash flow projection period. The reason for this is that wages are the largest recurrent cost item and the necessary funds must be budgeted for each payment. The financial manager should estimate the actual cash amount for wages net of any amounts withheld. This is more accurate than working on a gross basis (i.e., wages plus social security contributions), as there is a time lag between the pay-day and the due dates of the various deductions and charges (i.e., taxes, savings and checking account remittances, social security contributions). The projection process starts from the net amount paid in a recent past period, which is then adjusted for:

- Expected pay-roll increases or decreases
- Expected pay raises or cuts
- Seasonal fluctuations in amounts withheld
- Paid leave allowances
- Seasonal and extraordinary/overtime payments

Withholding Tax on Wages

The amount of withholding tax should be estimated for each period. Present payment practices should be reviewed so that the tax is remitted on the latest date allowed by the law. The amounts credited to the local budget should be included in the estimate, as well as in the revenue estimate for the same period and on the same base amount.

Debt Service

The funds required for interest and principal payments to bondholders, and the respective due dates, can be determined in advance. If a broker is involved, the estimate must be based on the due dates agreed with him, which may not necessarily be the same as those on the bonds.

Capital Expenditure

To estimate capital project expenditure, the financial manager cannot rely on past terms. Those will be different in each specific case. Therefore, with the help of the relevant officers, the financial manager must become familiar with the details of each development contract. In addition, he must find out which projects are scheduled to commence during the projection period (e.g., the financial year) and break the expenditure down accordingly. It is recommended that a separate cash flow projection be prepared for each capital development project with reference to its specific funding sources.

Purchases

Often, the financial manager may look back to previous periods in order to estimate the amounts spent on purchases (supplies and equipment). Where supplies fluctuate on a seasonal basis, separate estimates may be made; in most cases, however, past records will do. Purchases include:

- Office supplies;
- Computer supplies;
- Equipment;
- Postage;
- Stationery;
- Fuels:
- Maintenance supplies; and
- Textbooks and teaching aids.

Outside Services

Past experience may also provide the basis here, but adjustments should be made for price changes and absorption. Typically, this category includes all the utility charges.

Other Operating Costs

There are also strongly fluctuating or extraordinary costs, in terms of both nature and amount, like:

- Travel expenses;
- Customs duties, fees and dues;
- Professional fees, e.g., legal, accounting, consultant;
- Per diems related to committee work, elections and other local events; and
- Insurance, which can, however, be budgeted and should be projected in terms of cash flows.

CASH FLOW AND INVESTMENT REVENUE PROJECTIONS

Once the period estimates of revenue and expenditure are ready, the financial manager can proceed with the cash flow projection. The first step is to fill in the form provided in Exhibit 4 with total estimated revenue and expenditure by period from Exhibit 2 and 3, respectively. The net cash flow for each period results from subtracting total expenditure (outflow) for the period from total revenue (inflow). If inflows exceed outflows, the city has a positive cash flow. A negative cash flow results from the opposite situation. Column totals must be worked out for each period. To check for any calculation errors, the

sum of net cash flows for all periods must equal the sum of column totals by period.

Next, the financial manager must determine how acceptable and feasible the cash flow is. If the projection is made on an annual basis, it must be compared with the cash flows resulting from the approved city budget for the year. The two may not be immediately comparable if a different approach has been used to draft the budget; still, the "bottom lines" should match fairly closely. The following considerations should also be borne in mind when trying to reconcile the cash flow projection with the city budget:

- The cash flow projection does not include investment interest revenue and the cost of borrowing.
- If the accounting system behind the city budget is accrual-based, there is bound to be a time discrepancy between the budget and the cash flow projection. Thus, for the purposes of the budget, a revenue may be recorded when accrued (i.e., prior to payment), while the cash flow projection, as its name suggests, is cashbased and the same revenue amount will be projected for the time when it will be credited to the city's bank account.
- Some costs, notably, asset depreciation, may be included in the budget but not in the cash flow projection.
- Some outlays, like transfers between two municipal funds, will show in the cash flow projection but not in the city budget.

Determining the Size and Timing of Investment

A positive net cash flow for a given period (shown in Exhibit 4) may indicate a short-term investment opportunity. On the other hand, if the opportunity is seized, the investment maturity must be scheduled so that it comes at a time of negative cash flow, if one is projected for a subsequent period. In most cases, the dates to watch will be pay-days and the due dates of other large spending items.

Investment and Short-Term Borrowing in Exhibit 4 illustrate a method of planning which seeks to ensure an appropriate cash balance at the end of each period. Short-term investment interest and the cost of short-term borrowing are also included in the section.

Determining Investment Revenue by Accounting Period and Fund

Exhibit 5 is a sample form used to record investment revenue by accounting period. It is important to note that what it shows is revenue accrued for the period, not revenue actually received. The financial manager must be aware of revenue accrued for each period in order to be able to maximize the end result and post the amounts, which may

come from a variety/mixture of instruments, to the appropriate funds.

MAKING THE ACTUAL INVESTMENT

At this point, the cooperation of the city's legal department should be sought. If there is already a locally prescribed procedure, and if it happens to be unreasonably restrictive, the financial and the legal department should combine their efforts to try and amend it. Before investing what temporary cash surplus is available in short-term securities, the relevant legal framework must be studied with attention to existing national and local restrictions. Not until what the law allows is determined should the other relevant criteria be assessed, i.e., risk, liquidity, and yield.

Legal Framework

The current legal framework has been laid down in the LSGLA. Article 21(1.6) defines the City Council's budgetary authority; Article 51(4) provides for the investment of cash surpluses in what is termed "economic activity." No express provision exists for investment in securities but "economic activity" does imply that as well, and is in fact the more appropriate term to use.

The draft Local Finance Act makes no mention of municipal investment either, and that is one of its deficiencies. It is normal practice, on the other hand, for cities to enact Ordinances concerning their investment policy and debt management, as well as various Rules of Procedure governing the administration and/or the Council. Given the absence of any special primary legislation and the risk involved in investment activities, it would be a good idea not to rely on the common statutory provisions but make a local enactment instead, featuring:

- A definition of the circumstances in which investment in assets or other issuers would be allowed.
- A list of appropriate investment instruments.
- An investment selection procedure.
- A procurement procedure concerning financial services.
- A management procedure for the entire investment process.
- Objective criteria to ensure the city's financial stability.

Risk

The risk of financial loss must always be considered by the city in its short-term investment activities. High-risk or speculative investment should be avoided, even when perfectly legal. For example, while government securities are usually regarded as an almost zero-risk guaranteed-return investment, cities should avoid investing in corporate

securities on the secondary stock market. In some countries, the law prohibits the investment of taxpayers' money in stock market instruments.

Liquidity

Once an investment opportunity has been analyzed in terms of legal restrictions and financial risk, the next step is to determine its liquidity. The liquidity of an investment is the degree to which it can readily be transformed into cash without any loss of principal or interest. Usually, financial managers who are beginners in cash flow management lay a stronger emphasis on liquidity than their more experienced colleagues. Experience, on the other hand, is not a perfect guarantee against the occasional liquidity shortfalls. That is why an investment portfolio should always feature a proportion of highly liquid instruments to ensure that all outlays are made as due, even though they may not have been included in the cash flow projection.

Yield

The next step is to look for the highest return/yield that the investment could produce, bearing in mind that the various types of instruments often differ in this respect. The comparative analysis of similar instruments may produce good results in trying to determine the highest yield available on the market. For example, securities of similar face terms may produce different yields if purchased from different banks.

In some cases, the instrument's maturity affects both its yield and its liquidity. The general rule is that the longer the maturity the higher the yield and the lower the liquidity.

Securities can be purchased at their face value, at a premium, or at a discount:

- If the investor purchases at face value, the amount he/she must pay, and the amount he receives at maturity, is that inscribed on the instrument.
- If the investor purchases at a premium, what he/she must pay is the face value plus the premium, but what he gets at maturity is only the face value.
- If the investor purchases at a discount, the price he/she pays is the difference between the instrument's face value and the discount, and what he/she gets at maturity is greater, by the discount amount, than what he has paid.

Investment Alternatives

- Commercial bank savings
- Savings accounts with savings institutions
- Time deposits

- Securities; REPO
- Commercial paper
- Investment insurance

SHORT-TERM BORROWING

There are practical situations in which short-term borrowing to cover certain costs is preferable to using available funds earmarked for other purposes. For example, there may be a need to bridge the gap in time between the decision to float a municipal bond to finance capital development and the actual proceeds from the offering. If during that gap some construction costs fall due, it would be more appropriate, instead of resorting to other city funds, to contract a bank loan (a "bridging loan") to be paid off from the bond proceeds.

A similar situation may arise when the city has to incur costs which are to be funded from a national program and for which the city will be reimbursed at a later date. In the meantime, a bank loan could be used to cover those costs, while the reimbursement will be applied to the loan repayment.

Tax revenue fluctuations over the financial year may result in negative cash flows for certain months and vice versa. Short-term borrowing may also be used to finance cash shortfalls in any given period. Unfortunately, LSGLA Article 52(5) prohibits municipal borrowing to finance general spending, e.g., wages, current operating costs, etc. This places municipalities at a disadvantage vis-à-vis the central government, which has for several years now financed its budget deficit by direct borrowing or by increasing the domestic debt.

There are also economic reasons why municipalities should avoid short-term borrowing to finance current deficits: they may eventually be unable to service their debt, try to finance debt payments by contracting new loans, and come under an increasingly high interest rate burden. On the other hand, borrowing as such is a perfectly normal financial operation and, the legal restrictions apart, there are quite a few other situations in which a short-term loan is the best option that a city could choose.

In addition, existing regulations may further limit or restrict short-term borrowing. According to LSGLA Article 21(1.10), the City Council is solely authorized to make borrowing decisions. Locally, this provision is applied in various ways:

- Some City Councils set borrowing ceilings as a proportion of the city's own revenue and delegate the concrete decision-making authority to the local administration.
- Others may strictly define the purposes for which loans may be contracted.

• Still others prefer to keep their exclusive power of voting on each particular borrowing proposition, while the administration does all the preparatory work.

As a general recommendation, cities should avoid short-term capital development borrowing, except in the above cases. Long-term capital projects should be funded from accumulated reserves, special government subsidies or long-term municipal bonds.

APPROACH TO COST CENTER ASSESSMENTS

The following overview of the status of education and health care in 1996 does not provide sufficient basis for any final conclusions regarding the processes as a whole. There are two more significant aspects to these processes which are beyond the scope of the present study and which are vital for any objective evaluation to be made. If the beneficiaries of the project find the other two components of the approach acceptable, i.e., the need for education and health care and their results, then the proposed scheme for measuring the resources input does allow an objective evaluation of this status.

In any case, a systematic approach should include three components:

- Evaluation of the need for educational and health services. The officers from the education and the health care departments, with the assistance of the community and on the basis of reliable data and forecasts, must perform regular analyses of the demographic and other social processes and define the needs for at least a year ahead. The results of this activity need to be considered also as a starting point for the budgeting process in the municipality.
- Evaluation of the efficiency of educational and health services. Here attention should focus on the cost of the service, i.e., how much it costs to the funding authority. Also, the existing financial and accounting system should be analyzed and evaluated as to its ability to provide timely and reliable information. Management and information flows need to be reconsidered and streamlined to ensure clear authority and performance evaluation criteria.
- Evaluation of the effectiveness of educational and health services. The result of educational services should not be measured within the municipal administration, regardless of the management system applied. What is needed is an effectiveness monitoring system that excludes the influence of the funding authority. Thus, for instance, the fact that the municipality has increased our planned outlays for the following year by 50 percent does not necessarily mean the municipality has improved the quality of education as a whole. It is useful to involve school trustees, NGOs, citizen committees, etc. in the process.

This study focuses mainly on establishing criteria for measuring efficiency, which can be assumed to be objective and be used throughout the budgeting process for both spheres.

The goals of the assessment include:

- To illustrate the present situation of the cost involved in the education and health care processes.
- To apply systematic criteria measuring the results of managing these processes and the interaction between the municipal leadership and the management of the respective establishments.
- To readjust the accounting system in a way allowing timely and reliable cost accounting at the class level in schools and the ward level in regional hospitals.
- To set up a reliable and objective system for prescribing and administering pharmaceuticals both for hospitals and to individuals under the Free Medication Regulation.
- To develop a system monitoring the indicators in the various educational and health establishments.
- To determine the need for centralizing certain procurements for education and health care with the purpose of reducing shared costs such as heating fuel, pharmaceuticals, etc.
- To set up a clear cut system for keeping taxpayers informed about the cost of services delivered by the municipality.

EDUCATION COST CENTER ASSESSMENT

GENERAL

The educational system in the Municipality of Vidin includes the following 61 establishments and units:

- 27 full-day kindergartens;
- 4 half-day kindergartens;
- 6 secondary schools;
- 13 elementary schools (age 6 14);
- 2 primary schools (age 6 10);
- 1 foreign language secondary school;
- 1 natural sciences and mathematics high school;
- 1 student hostel in Vidin;
- 1 student hostel in Inovo;
- Municipal Children Center;
- Handicraft Center, used by all schools for handicraft classes; and
- Other activities.

In this analysis, a differentiation will often be made between village and city educational establishments. Other classifications will also be applied as necessary.

Educational establishments have over 71,000 square meters of total built-up area and over 163,000 square meters of open land. These include 393 classrooms and 6 after-classes study rooms. The academic process is organized in 483 classes, involving 9,537 students and a personnel of 1,235, including 934 teachers.

Kindergartens have 27.5 thousand square meters of built-up area and almost 105,000 square meters of open land. They include 109 study rooms for children aged 3 to 6.

SCHOOL ACTIVITY

The academic process cost the municipality 207 million leva.² In 1996, costs included 154 million for schools in the city and 29 million for village schools. City schools educate 8,923 children, and 614 attend school in villages (see Attachment 1 in Appendix B).

²School activity costs include costs for the Handicraft Center, hostel, the Municipal Child ter and the Central Educational Accounting Department.

School Activity in the City: The educational process in city schools involves 11 schools and the associated expenses account for almost 75 percent of the total expenditure for school activities in the Municipality of Vidin. The more significant expense lines include the following:

	Leva	Percent
Salaries	90,388,000	59
Social security	35,042,000	23
Office and supporting costs, including	21,298,000	14
Heating	15,876,000	10
Water	763,000	0.5
Electricity	484,000	1
Other	7,472,000	4
Total	154,200,000	

Note: See Attachment 1 for a complete overview of cost center expenditures.

The training process is carried out in 234 classrooms in 398 classes, and the average number of student per class is approximately 22. In the following section, we will look at the financial situation of schools and subdivide the cost centers in terms of a number of criteria describing the cost of education.

Number of classes (see Attachment 3)

- More than 50 classes
- Between 30 and 50 classes
- Up to 30 (29) classes

The groups of schools are almost identical to those discussed under the previous feature.

Number of students (see Attachment 5)

- Over 1,000 students
- 600 to 1,000 students
- Less than 600 students

Groups coincide with those under the sorting above.

Number of students per staff person (see Attachment 7)

- Exceeds 10 students
- From 9 to 10
- Less than 9

Total expenses (see Attachment 2)

- Exceeds 22 million leva
- Between 10 million and 22 million leva
- Less than 10 million leva

The first group includes secondary and elementary schools for students aged 6 to 14; the Mathematics School falls into Group 3.

Expenses per student (see Attachment 4)

Under this indicator, the examined schools can be divided into three groups again. Annual expenses associated with maintaining one student in school at a level:

- Exceeding 18,000 leva
- Between 15,000 and 18,000 leva
- Below 15,000 leva

In addition to the grouping trends already identified, the Otets Paisiy Elementary School clearly stands out at the peak with costs at 19,600 leva, which sends it into the group of large schools. The situation is similar with the Kliment Ohridski Elementary School, with 18,000 leva.

Expenses per class (see Attachment 9)

The three groups revealed under this criteria are the following, schools with class expenses:

- Over 400,000 leva
- Between 350,000 and 400,000 leva
- Under 350,000 leva

Again, as with the previous grouping, the most expensive school is Kiril I Metodiy Secondary School, with approximately 15 percent higher expenses than the

second school in this group. The difference between the second most expensive school and the rest of the schools in this group is more reasonable—up to 5 percent.

On the other hand, one of the largest schools, the P.R. Slaveikov Elementary School has the lowest cost of maintaining a class of students, at 332,300 leva

Expenses per staff person (see Attachment 6)

- Over 180,000 leva
- Between 170,000 and 180,000 leva
- Less than 170,000 leva

Expenses for salaries and social security contributions per student (see Attachment 8)

This indicator shows the level of distribution of expense items with the highest relative share under Education—over 78 percent.

- More than 14,000 leva per student
- 13,000 to 14,000 leva per student
- Under 13,000 leva per student

Expenses for salaries and social security contributions per class (see Attachment 11)

- Over 320,000 leva
- Between 300,000 and 320,000 leva
- Less than 300,000 leva

The Mathematics School falls into the first group since it has the lowest number of classes—20.

Expenses for salaries and social security contributions per staff person (see Attachment 12)

- More than 143,000 leva
- Between 135,000 to 143,000 leva
- Less than 135,000 leva

Heating expenses per student (see Attachment 10)

- Over 3,000 leva
- Between 1,500 leva to 3,000 levaBelow 1,500 leva

GROUPING

Under the criteria listed above, including three physical and eight financial, we can group the schools in the three groups which describe them in different terms. (See Attachment 7) The table shows all schools according to the frequency of their occurrence, their rating in the various groups, and by each of the criteria listed. The data obtained is sufficient for the purposes of a general assessment as to the appropriateness of spending municipal funds on education. It is a matter of local policy for local government leaders to select a behavior model appropriate for attaining the desired results.

Group 1

- **Typical representatives.** The Kiril I Metodiy and the Lyuben Karavelov Secondary Schools.
 - Others. Mathematics School and the Kliment Ohridski Elementary School.

The first two are characterized by the fact that they have the largest number of students and hence have the highest expenses. The second two are also representative of the third group under physical indicators and in terms of maintenance cost (the lowest values); in terms of unit costs, however, they fall into this group, i.e., education in these schools is the most expensive.

Group 2

■ **Typical representatives.** The Simeon Veliki and the Hristo Botev secondary schools, the Ivan Vazov Elementary School, and the Foreign Languages School.

These are characterized by indicator values that are average for the municipality, both with regard to physical and financial indicators.

- **Specifics.** The Hristo Botev secondary school and the Ivan Vazov Elementary School differ from the rest in the expenses for salaries per student, per class and per staff person, which ranks them in Group 1, that of the expensive schools. The Mathematics School also falls into the expensive group in terms of total expenses per student, per class and per staff person. Additional analysis is needed to identify reasons for his difference.
- Others. The P.R. Slaveikov Secondary School and the Otets Paisiy Elementary. The former has below average values for the following indicators: students per staff person and unit costs. (*Note: No data provided for heating costs*). Otets Paisiy Elementary has the smallest number of students, which accounts for its high costs per student and high salary expenses per student; hence it falls into the first group. On the other hand, in terms of

physical indicators and total expenses, it belongs with the third group. Under five unit cost indicators, it is ranked in the second group of schools.

Group 3

- Typical representatives. Sophroniy Vrachanski Elementary School falls into the second group only in terms of number of students per staff person and can be assumed as an insignificant factor.
- Others. The P.R. Slaveikov Secondary School and the Kliment Ohridski Elementary School.

See earlier discussion of these schools.

HEALTH CARE COST CENTERS ASSESSMENT

INTRODUCTION

Under the Socialist regime, the Municipality of Vidin was a district center. The health care system left over from those days is typical both in terms of structure and the types of services provided. Last year the Vidin Municipality spent 407,576,000 leva on health care. They support a staff of 1,840 people. The structure includes the following entities: a regional hospital, a polyclinic, the Worker's Polyclinic, village medical service centers, emergency wards, a center for labor hygiene, an orphanage, a dental clinic and a technical laboratory, and the social activities and accounting departments. Many of these organizations are the only providers of a their respective services in the region, bringing in non-residents from other districts. As a result the Vidin taxpayers pay for non-Vidin residents. Until this is resolved the municipal debt will continue to increase, but currently there is no legal way to solve this dilemma.

In talking with the administrator of the regional hospital it was discovered that it is in such serious financial condition that it has had a major impact on the health and well being of municipal residents. The main financial problem of the hospital is that the revenues it obtains from the municipal government are insufficient and irregular. The result is that the hospital's stocks of pharmaceuticals and other supplies are seriously depleted, with the outlook for replenishment poor. Furthermore, the hospital does not appear to be adequately heated due to both the shortage of fuel in the country and their inability to pay for what is available.

As the result of the financial crisis, only 300 of the 1,000 beds in the hospital are presently occupied because the hospital can handle only emergency patients, and only emergency surgeries are performed due to a lack of funds. It was mentioned to the administrator that the hospital might be able to reduce costs by reducing the number of wards that serve patients and he indicated that it had been discussed with the Mayor.

The organization and financial structure of the hospital system is strongly centralized, giving the municipality minimum legal control over the hospital management. The Ministry of Health (MH) determines basic standards such as numbers and types of wards, number of beds per ward, number and type of staff, and levels of salaries and social security. Making changes within the system is very cumbersome and requires the MH's approval. On the other hand the municipality is obliged to fund any decisions made by the ministry.

The existing accounting system is organized in a way that provides little analytical information. Expenses can be examined only by looking at the regional hospital as a whole, not by ward, bed or patient. While salaries are available for examination, no record of how staff members spend their time is kept.

Objectives

The objectives of this report are as follows:

- To help municipal officials begin to restructure the hospital system using the current accounting system; and
- To raise the awareness of the need for implementation of cost analysis and performance measurement systems.

Available Accounting and Statistical Data

The expenses of the hospital are accounted for in the following way:

- Expenses for the hospital as a whole;
- Line-item expenses under the Uniform Budget Classification (e.g. salary, social security, food, medication);
- Staff duties: and
- Types of prescribed medicines.

The existing accounting and statistics systems do not provide managers with adequate and analytical information. The accounting system lags significantly behind the economic events and is at the hospital level, and although containing valuable information, its preparation and submission do not serve the needs of the hospital management. Definitely, much can be done to improve its reliability. Two clear needs for data to accurately analyze the efficiency of hospital operations at the ward level are:

- Tracking hospital costs at the ward level (directly where costs can be attributed directly, such as for ward staff, medicine, and supplies, and indirectly through development of an overhead structure for costs associated with the hospital as a whole which are not easily allocated to individual wards (administration and maintenance, for example); and
- Utilization rates (expressed a the number of patient-days per bed) to indicate how efficiently the capacity in each ward is being used.

Data available for this study did not include this information. As a result, the analysis presented below utilizes a crude "synthetic' cost function to estimate costs per ward. (The derivation of the estimated ward costs is explained in the notes to Attachment 2.)

Before presenting the analysis, two other caveats about the results must be stressed. Making judgements about the relative efficiency of wards in the hospital must also take into account the unique nature of the supply and demand for medical care. First, health care decisionmakers may optimally choose a relatively high level of supply of a

particular health care service in order to ensure adequate supply in response to peak demand for that service. (For example, because of the seriousness of cardiovascular conditions, the hospital may choose to provide facilities to deal with three emergency cases simultaneously, even if the usual level of demand is only two simultaneous cases; i.e., the risk of the potential loss of life associated with not having a third facility available may be unacceptably high.) Thus, comparing average measures of cost and utilization may understate the effective utility of the ward.

Second, the level and intensity of treatment to avoid serious disability or loss of life is likely to vary significantly across wards; i.e., each ward is likely to have a different supply (cost) function to meet a common level of demand (avoidance of serious disability or loss of life). Thus, because the objective for the health care decisionmakers likely to be primarily based on meeting a common level of demand (rather than equalizing costs per patient or bed across wards), it is also likely to be acceptable for wards to demonstrate varying costs per patient or per bed.

In summary, the analysis presented below is merely a first step at identifying the varying cost patterns displayed by the current service structure at the hospital. Moving to the next step of determining the relative efficiency of the various wards requires comparing those costs with the relative contribution of each ward to meeting the demand for health care. In economic theory, this analysis would be carried out by comparing the consumption of health care in each ward with a social welfare function to achieve a uniform contribution by each ward to society's marginal utility. In more practical terms, this evaluation is often done through cost-benefit analysis, comparing the value of life preserved with the cost of providing health care. (It should be noted, though, that strict cost-benefit analysis often shows that the provision of health care services does not maximize social welfare as measure by the cost-benefit approach, suggesting that there are significant non-monetary contributions to social welfare by avoiding serious disability or death through the provision of health care.) Thus, the economic data presented here has to be weighed with medical and social judgements to achieve an efficient allocation.

What the economic data can do, however, is to highlight areas—say, where costs are very high or very low compared to the norm—upon which the discussion ought to focus in order to satisfy decision makers that an optimal level of care is being made available. Given that the structure of the wards, the beds in each ward and the staff employed under the list of job categories are the result of obsolete and inapplicable standards currently required from health care establishments of a certain type, and that these are uniform for the whole country, it seems likely that there is scope, at the local level, for making changes to hospital structure to provide the desired level of health care more efficiently.

RESULTS

Attachment 1 shows some basic data about the more significant health care establishments which expend 80 percent of the total expenses for this activity, house 100 percent of the hospital beds, and employ 1,450 people. In the structure of expenses, salaries, and social security contributions account for 60.2 percent, food is 6 percent, pharmaceuticals—13.7 percent, and office and supporting costs are 17.1 percent. In 1996, 20,353 patients have been hospitalized and 1,196,000 visits for ambulatory treatment were made.

Regional Hospital

The services offered at the hospital are listed in Attachment 2 under 28 wards and two satellite hospitals. In addition, there are non-medical units such as a hospital pharmacy, a reception and a management unit employing 20 people, which are connected to the overall functioning of the hospital. In 1996, operating costs amounted to 180,809,000 leva and accounts for over 44 percent of all health care costs in Vidin. From that, 54.6 percent is salaries and social security contributions, 9.2 percent is food, pharmaceuticals are 16.6 percent, and office and supporting costs are 15.7 percent. The hospital management believes that insufficiency of funds is the only reason for the deteriorated quality of medical services and has brought 1996 indicators to the following levels:

- Turnover per hospital bed 16 patients
 - Average days spent in hospital 13
 - Number of efficiently used beds 250 to 300
 - Planned surgery suspended
 - Administering of medical drugs suspended (with the exception of ampoules)

Both municipal and hospital leadership are seriously concerned that a situation like this should not be allowed to continue. On the other hand, there are no objective criteria, the application of which would lead to management decisions corresponding to the real volume and quality of medical services. At the moment, attention is focused on finding resources to keep the system in operation, and the results of that system are not studied or analyzed. Jobs, hospital beds, and buildings are being maintained while they do not match the financial capacity of the municipality, nor the need for medical services. Difficult, yet immediate decisions are needed, requiring a clear and objective argumentation.

In the following paragraphs we will examine a number of financial indicators for the regional hospital (using the "synthetic" cost data described above, as the reporting system as currently constituted does not provide sufficiently detailed information). This presentation hopefully offers a convincing argument for the need to make changes in the system, so that in the future it will generate useful data pertaining to the costs of medical services.

The structure of the individual wards are the result of uniform standards currently required of health care establishments all over Bulgaria. It is clear that these standards have become obsolete and inapplicable. Attachments 3 through 8 examine, respectively, the following ward cost/activity indicators:

- Attachment 3: Beds per staff;
- Attachment 4: Patients per staff;
- Attachment 5: Ward cost;
- Attachment 6: Ward cost per bed;
- Attachment 7: Ward cost per patient; and
- Attachment 8: Ward cost per staff.

For each indicator, those wards showing costs with a variance of more than one standard deviation from the mean cost are highlighted (by shaded rows in the table). As noted above, the purpose of this analysis is not to mechanically push any of these cost indicators to a particular level, but to examine the variation of these indicators to begin the process of identifying those wards where resources and needs are ill-matched—a process that will require a dialog between medical personnel and health care system decision makers.

Attachment 9 summarizes the rankings of the wards under the five indicators discussed above, indicating which wards most frequently appeared to have costs above or below the range of costs spanning one standard deviation higher or lower than the mean. Using the "synthetic" ward costs developed for this report, it appears that there are several wards whose costs are consistent outside the specified range and whose operations are worth examining more closely. In some cases, such as the outpatient and patient day care wards, the explanation in the consistently low cost indicators may be due to the nature of illness and treatment administered (i.e., costs are less because treatments are simple and short and patients are not admitted to the hospital). In other cases, such as the #1 and #3 Intensive Care wards, costs may be consistently high because of the intensive treatment required to alleviate life-threatening conditions (although it is worth examining why these wards show higher cost indicators than the other intensive care wards). Answers to these questions require looking at operations in each of these wards in more detail, particularly using actual expense and utilization data for each ward.

At their request, this report will be shortly given to municipal officials. The State Budget Law for FY 1997, passed in July, requires that by the end of the year the municipalities must cut hospital staff in by 10 percent. This means that the city councils must make decisions based on existing management and financial systems within the next few months.

The possible managerial decisions, based on the data presented in the report, are:

- Restructuring of staff in the regional hospital and the municipal health care in

general;

- Optimizing the work-load of the staff through changes in the duty schedule; and/or
- Cutting staff in wards providing infrequently requested medical services.

The report will aid in preventing mechanical staff cutting in each ward, which has been the practice in the past. It will also provides tools for additional analysis when taking managerial decisions of such importance.

APPENDIX A CASH FLOW MANAGEMENT EXHIBITS

APPENDIX B

EDUCATION COST CENTERS ATTACHMENTS

APPENDIX C

HEALTH CARE COST CENTERS ATTACHMENTS